

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
25 January 2007 (25.01.2007)

(10) International Publication Number
WO 2007/011322 A3

(51) International Patent Classification:
C12Q 1/68 (2006.01)

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SI, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number:
PCT/US2005/010266

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SI, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(22) International Filing Date: 29 March 2005 (29.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/557,612 29 March 2004 (29.03.2004) US

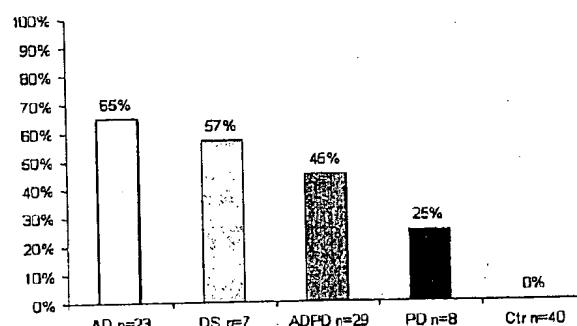
Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:
22 November 2007

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHODS AND COMPOSITIONS FOR DIAGNOSIS OF ALZHEIMER'S DISEASE AND OTHER NEURODEGENERATIVE DISORDERS



(57) Abstract: Methods, compositions and apparatus (e.g., test kits, test systems, reagents, related computer software, calculators, etc.) for pre-symptomatic or post-symptomatic diagnosis of Alzheimer's Disease or other disorders associated with the formation of β -amyloid deposits (e.g., plaques) and/or β -amyloid fibrils. Also, methods, compositions and apparatus assessing the efficacy of treatments for such disorders. Sample cells, tissue or body fluid are obtained from a human or animal subject and analyzed to determine whether or to what extent certain mitochondrial DNA control region (mtDNA CR). Significantly elevated numbers of these mtDNA CR mutations may indicate that the subject suffers from, or is at increased risk for development of, Alzheimer's Disease or other disorders associated with the formation of β -amyloid deposits (e.g., plaques) and/or β -amyloid fibrils. A significant decrease in the numbers of these mtDNA CR mutations during treatment for the disorder may indicate that the treatment is effective.

WO 2007/011322 A3